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THE AMERICAN BEE JOURNAL

OLDEST BEE PAPER IN AMERICA

GEORGE W. YORK,
Editor.

DEVOTED EXCLUSIVELY
TO BEE-CULTURE.

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Sample Free.

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NO. 4.



The Canadian Bee Journal office, we are sorry to hear, was wholly destroyed by fire a short time since. We do not know whether its publication will be continued or not, but we presume its proprietors have made an announcement to its subscribers long before this time. It is to be hoped that the office was well insured, as it does not pay now-a-days to go without insurance—at least no good business man would do so.

Father Langstroth, we are pained to learn, is again suffering from a continued attack of his old "head trouble," and "the dark clouds" of despondency once more hover over him. A few days ago we sent him a check for the first \$5.00 that had been collected in the "Langstroth Fund," that we are trying to raise for Father L., and in response thereto we received the following letter full of tenderness and anxiety from his widowed daughter, with whom he lives:

DAYTON, O., July 17, 1893.

MR. GEORGE W. YORK.—

Dear Sir:—I hope you will pardon me for a few days delay in answering your letter, and acknowledging the receipt of the enclosed check.

My father's old "head trouble" has been upon him ever since last November, and "the dark clouds" have seemed to him blacker and heavier, and harder to bear,

than ever before. Added to this, his advancing age has greatly increased his physical disabilities, and he has been very feeble and infirm.

He desires me to thank you for your generous efforts in his behalf, and through you to thank those who have kindly remembered him.

He is totally unable to do anything which would help him pecuniarily, and whatever is freely offered by those who feel themselves benefited by his invention, is gratefully received.

With kind regards from my father, and my own thanks for your thoughtfulness towards him, I am,

Yours respectfully,

ANNA L. COWAN.

It seems to us that after reading the foregoing letter, all of our readers will contribute at least a little to the "Langstroth Fund," so that Father L.'s last few years may be made as comfortable and happy as possible. After he is no more with us, we feel sure it will be a blessed memory to know that we tried to do something so that the Father of American Apiculture should not want for things needful in his last days.

Let there be a general contribution now that the honey harvest has been abundant, and bee-keepers will once more be cheerful and happy. Share your prosperity with those who are less fortunate, and thus show gratitude for the great blessing of another honey crop that shall sweeten your life and also the life of your friend in affliction.

World's Fair Notes.—On Saturday, July 15th, we spent a little time at the apiarian exhibit in the southeast corner of the Agricultural Building.

We noticed that Illinois is still unrepresented, but we presume that the exhibit will soon be put in place.

Dr. Mason was there to look after the

Ohio exhibit, and to attend to some other work in connection with an exhibit of bee-keepers' supplies.

Hon. Eugene Secor, the genial Judge of all the apiarian exhibits at the Fair, was there attending to his duties. His appointment gives entire satisfaction to all.

Mr. O. L. Hershiser was in charge of the New York State exhibit. He is a jovial, wide-awake bee-man. He couldn't be anything else, and get up such an exhibit as that of New York, which includes six colonies of bees. On July 12th he took off several pounds of perfectly capped white clover honey, gathered by bees from Mr. G. M. Doolittle's apiary. This is perhaps the first time that an apiarist has attempted to have a practical apiary at a Fair. From present indications he expects to secure some two or three hundred pounds of honey from his little apiary in the big Agricultural Building. Mr. Hershiser had one of H. P. Langdon's non-swarming devices in practical operation.

Mr. A. G. Hill, editor of the *Bee-Keepers' Guide*, was also there, to put in place the Indiana honey exhibit. He informed us that he had discontinued the publication of the *Guide*, and would devote his time to the supply business. The *Review* is to fill out the unexpired subscriptions of Mr. Hill's late bee-paper.

Mr. Pringle has put up a very attractive exhibit for Ontario, Canada, and the day we were there, Judge Secor had begun to go over the display with Bro. Pringle, preparatory to making the awards.

A nice young man from Bro. Root's establishment was "taking in the Fair," and we had the pleasure of meeting him. We do not now recall his name, but we were glad to see one from the "Root plantation."

Burned to the Ground.—We are very sorry to learn of the heavy loss by fire that has come to the excellent firm of Levering Bros., of Wiotia, Iowa. On July 21st we received the following letter from them, telling about their misfortune:

WIOTIA, IOWA, July 20, 1893.

GEORGE W. YORK & CO.—

Dear Sirs:—On the night of the 17th, at about midnight, our factory caught fire and burned to the ground, with a large warehouse filled with supplies of all kinds. Our loss is complete, as all our machinery is ruined, and our loss is between \$25,000 and \$30,000; insurance \$3,000.

We have only one warehouse left, that

contains sections and dovetailed hives, with some smokers and extractors. It is a hard blow on us, as our resources are all cut off, and we are unable to meet all our obligations at present. Yours respectfully,

LEVERING BROS.

We hope our friends may soon be enabled to recover from their terrible loss, and rebuild even greater than before, where now are ashes and ruins.

Mr. H. Reepen, our correspondent in Germany, will not be able to come to Chicago this year, as had been expected. We have received the following letter from him, dated July 3, 1893, which explains itself:

FRIEND YORK:—Please let the readers of the AMERICAN BEE JOURNAL know, that the Minister of Agricultural Affairs has not been able, to his great regret, to grant a supporting for the delegate, as the funds were not sufficient, and as I cannot afford the long and expensive journey from my own revenues, I am very sorry to say that I cannot go to Chicago.

Sincerely yours,

H. REEPEN.

Mr. Reepen's host of American bee-keeping friends will regret to learn the above news, for doubtless many of them had counted much upon seeing him at the great bee-convention in October here in Chicago. But if we cannot be favored with seeing Mr. Reepen, we can at least have the pleasure of reading his writings, some of which are to be found on page 108 of this number of the BEE JOURNAL, and more will follow latter.

Honey Analyses is the title of Bulletin 96, just issued by the Michigan Agricultural Experiment Station, under the direction of Prof. A. J. Cook. When mailing the Bulletin to us the Professor wrote as follows:

Please urge all your readers to send to Prof. Wiley, at Washington, D. C., any known honey. We should have many analyses made to get at the exact truth. We ought to know the truth. This is important, and now is the time.

I will mail Bulletin No. 96 to all who write for it.

Yours truly,

A. J. COOK.

Agricultural College, Mich., July 14, 1893.

The Bulletin contains several tables showing the results of the analyses of nearly 60 samples of honey by Prof. H. W. Wiley, of the Department of Agriculture at Washington; by Prof. M. S. Scovell, Director of the Kentucky Agricultural Experiment Station

at Lexington; and by Prof. R. C. Kedzie, chemist at the Michigan Agricultural Coll.

It is a very interesting document, and the various "analyses show conclusively that our chemists can easily distinguish honey adulterated with glucose (the only adulterant that is likely to be used) from all honey except that produced from honey-dew. All three of the chemists at once detected two of the samples which were adulterated" purposely, but of course not indicated in any way to aid them in their detection.

In giving a sort of concluding "Summary," Prof. Cook says:

We are thus assured by these analyses:

1st. That chemists can easily detect adulteration of honey by use of glucose, in all cases where it is likely to be practiced. The same would be true if cane sugar syrup was mixed with the honey.

2nd. That a probable method to distinguish honey-dew from honey adulterated with glucose has been determined by these analyses. The right-handed or slight left-handed rotation, together with the large amount of ash, and small amount of invert sugar indicate honey-dew honey. As honey-dew honey will never be put on the market, this question is of scientific rather than practical importance.

3rd. As yet the chemist is unable to distinguish between cane-sugar-syrup honey (by which we mean cane-sugar syrup fed to the bees and transformed by them into honey, and not cane syrup mixed with honey, which is adulteration pure and simple, though a kind not likely to be practiced), and honey from flowers. As the best cultivated taste cannot thus distinguish, this seems of slight importance. If it should prove to be important to be able to distinguish them, it is probable that the chemist will discover the means, as chemistry has very delicate eyes, and can usually search out very slight differences.

We see that there are yet unsolved problems in this direction, and it is desirable to follow up the investigations. Prof. H. W. Wiley is desirous to do so until the last fact is discovered. To better accomplish this he desires samples of three or four pounds each of honeys from any known source, especially honey-dew honey, and that gathered very rapidly. Sugar-syrup honey will also be very acceptable. Such samples may be sent to Prof. H. W. Wiley, Division of Chemistry, Department of Agriculture, Washington, D. C. The express will be paid by the Department of Agriculture.

I wish to thank the three distinguished chemists who have rendered such able assistance in determining these valuable results.

A. J. Cook.

Agricultural College, Mich., June 23, 1893.

Let all who can do so, send samples to Prof. Wiley at once, as directed in the latter part of Prof. Cook's closing remarks.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Colony Not Doing Well.

I have one colony of bees that are nearly black, and are not doing well. They wintered all right, but have not sent out any new swarms, or stored much honey. Would you advise putting in a new queen, or would you put in a pure Italian queen? E. R. BENSON.

North Adams, Mich.

ANSWER.—It is sometimes the case that a colony will be very weak in the spring, and the queen seems to make poor work at laying, but afterward, as the weather gets warmer, and the size of the colony increases, she will show herself very prolific. But when the colony is at a stand-still under favorable circumstances, it is pretty safe to say that the queen is at fault. Even if it be said that the fault is with the workers, the only way to have better workers is to change the queen.

The nearer you can come to pure Italian stock, the better, when it comes to introducing a queen; and you will probably find that the introduction of a good queen will set everything to rights.

Driving Out Surplus Virgin Queens.

Do bees often drive their (surplus) virgin queens from the hive without injury? The reason I ask is this:

I had a very strong colony which cast a swarm on June 5th, a second on the 14th, and a third on the 16th. In the evening after casting the third swarm, I noticed that the bees were dragging out young queens. I took two of them from the bees, and they seemed to be unhurt. Now, the first swarm lost its queen the second day after swarming, and had started several queen-cells. I took one of the queens taken from the bees and slipped in this queenless colony; two days after I opened the hive, and found the bees had accepted this virgin queen and had torn down their cells, and to-day the young queen is busy filling the combs with eggs.

On the morning of the 17th I found

another queen on the front of the hive, which I gave to one of my neighbors, who killed the queen of a full colony and introduced the virgin queen. That one is laying also, proving that they were not hurt. From all the books at my command, I find the oldest queen kills the rest when swarming is over.

J. F. TRUESDELL.

Duncan's Falls, O., June 27, 1893.

ANSWER.—Bees are the most aggravating creatures imaginable. Just when you think you know what to expect of them, they will turn a sharp corner on you and astonish you by doing just the opposite of what you expected. It is so commonly the case, that the books are pretty safe in putting it down as a rule that the first young queen that hatches out destroys the others in their cells. But every bee-keeper of sufficient experience knows that sometimes a number of queens will be at liberty at the same time, and then it is not a matter of greater age, but of superior strength and skill as to which shall be the survivor.

Occasionally a young queen may be seen disconsolately sitting outside a hive, whether it be that she has been driven out by the workers, by some rival, or what not. But you will probably find that in the majority of cases all young queens that are brought out of the hive by the bees are dead queens.

Why were the Queens Killed?

Why did the bees kill two queens in an upper story, *a la* Doolittle? Having prepared ten queen-cells and placed in an upper story with a queen-excluder, on June 16th, on June 26th I had 7 of the 10 cells completed, 4 of which I placed in 4 colonies made queenless for that purpose 48 hours before. Those cells placed in colonies hatched, and are all right. I left three of the cells on the stick, after putting the cells in the hives. I had made a queen-excluder division in the upper story mentioned; on one side I had two cells on the stick, and on the other side a comb of brood and one of honey, with a cell on the brood-comb. Now, then, I had two nice queens hatch, one on each side, but—about 36 hours after they hatched out, I found one had been killed by the bees, and the other one being balled, both are dead. D. A. CADWALLADER.

Prairie du Rocher, Ills., June 30.

ANSWER.—It isn't of so much consequence to know *why* bees do certain

things as to know *what* they will do under certain circumstances. You will probably find that sometimes bees will rear queens in the upper story, just as yours did, and that sometimes they will utterly refuse to do anything of the kind. So they will sometimes continue the young queens and have them go to laying, and sometimes they will do as yours did. Just what makes the difference seems pretty hard to tell. Possibly being nearer to the brood-nest, or farther from it, may make a difference; but there is an interesting field here for investigation.

Drawing Out Foundation for Combs.

I have a quantity of frames and sections filled with foundation ready to be worked by the bees. Would it be possible to put a few colonies to work this foundation into nice combs without storing honey or pollen in the cells, and remove these same frames of comb, to be filled with honey by other colonies in my apiary? Could it be done? If so, how can I do it? MICHAEL.

ANSWER.—No, you cannot get bees to build comb, either with or without foundation, unless they have a chance to store something in the comb. They will draw it out a little way before storing anything in it, and you can get them to do that, if you wish, by simply putting the foundation where they will be obliged to cluster on it. Of course this must be at a time when bees are storing. The Oatmans used to credit a good deal of their success in getting large crops to the fact that full sheets of foundation in brood-combs were given in the brood-nest just long enough to be drawn out into shallow cells, then cut in pieces and put in sections.

The Illinois Honey Exhibit at the World's Fair is now being put in place by Bros. Jas. A. Stone and J. M. Hambaugh, who called at the BEE JOURNAL office last Saturday. They are anxious that Illinois shall have a fine exhibit, and desire those who have honey, or anything else in the aparian line that they think will be suitable for exhibiting, to write them at once, so that arrangements may be made to have it sent to the World's Fair. Address, Messrs. Stone & Hambaugh, care of W. I. Buchanan, Chief Agricultural Department, World's Fair, Jackson Park, Chicago, Ills.



JAMES A. STONE.

One of the first bee-keepers we met at the convention of the Illinois State Bee-Keepers' Association here in Chicago, last fall, was Jas. A. Stone, its genial



JAS. A. STONE.

and efficient Secretary. We had had quite a good deal of correspondence with him in previous months, and had thus come to count him among our esteemed friends; but when we came to meet him face to face, and learn of his great popularity among all who knew him best, then it was that we began to appreciate his value to bee-culture, and to prize his friendship more.

Mr. Stone has for some months been

replying to questions in our department of "Queries and Replies," and hence we desired the more to present him somewhat formally to our readers in the Biographical part of the BEE JOURNAL. Through the kindness of some of his very good lady friends, we are now permitted to learn something of the characteristics of the man who signs his name "Jas. A. Stone." Here is what "One of Them" has to say about him, and it doubtless will be somewhat "surprising" to Bro. Stone when he reads it in this number of the BEE JOURNAL:

Visiting the wife of the subject of this sketch, I heard her remark that her husband was in a dilemma—wanted very much to please his friend York, of the AMERICAN BEE JOURNAL, by complying with a request to send his picture and biography for publication; that the picture had been sent, but he had nothing of importance as biography; could only say he was born on May 6, 1842, in Sangamon county, Ill., on the farm his father "entered" near Springfield, where he now lives with wife and only son; and also had the honor of being Secretary of the Illinois State Bee-Keepers' Association since its organization. I said, "Let us, the ladies of his neighborhood or Sunday-school class, 'write him up.' They don't want to wait until he is dead to say what *they* think of him. (His wife being *all right, too*, just let's us admire him all we please.)"

He always has the best and most attractive displays of honey and bee-supplies in the county; takes the first premiums on both, at all our county fairs; and his honey is put up in such an attractive manner that it always commands the highest market prices. Yet he does not make bee-keeping his specialty, but with his flock of Oxford Down sheep on one of the very prettiest farms in Sangamon county, *we* think is something to boast of.

We also think it is something to have been elder of the Presbyterian church since he was old enough to fill the place, and Sunday-school Superintendent for 13 years at one time, and has been the Sunday-school teacher of a class of young ladies for *ten* years, and they say they are going to keep him *that many* more. Two of his class are missionaries in Siam, and another, the third one, has just offered herself to the Foreign Board.

And glad we were, when he assured

us, as Superintendent of the Illinois honey display at the World's Fair, he would cover from top to bottom the Illinois cases on the Sabbath day, if the Fair continued to be open on Sunday.

Is it nothing to have all the widows and orphans for miles around feel free to go to him for help and advice?

It is true he is *not* a politician, has never been in the legislative halls as a member, but *would have been long ago*, could we women have had the ballot; for all true womanhood honors the man who is brave enough to stand *staunch* and *true* (against multitudes of sneers and curses) for all reforms of the day; and has the courage to espouse the cause of *Prohibition* and *woman suffrage*.

Mr. Stone is not to see this till in the BEE JOURNAL. FROM ONE OF THEM.

Well, "Mr. Stone" did not see the foregoing "till in the BEE JOURNAL" this week; but if "One of Them" doesn't wish, very soon after he does read it, she *wasn't* "One of Them," or was one of the two of them in Siam, why we will just miss our guess, that's all. However, we are glad that Miss "One of Them" wrote just as she did, for we are sure if she hadn't we wouldn't have known so much of Bro. Stone. He is well named—Stone—and we see he stands as solid as a stone for what he believes to be *right*. May his tribe increase!

"**The Winter Problem** in Bee-Keeping" is the title of a splendid pamphlet by Mr. G. R. Pierce, of Iowa, a bee-keeper of 26 years' experience. It is 6x9 inches in size, has 76 pages and is a clear exposition of the conditions essential to success in the winter and spring management of the apiary. Price, postpaid, 50 cents; or given as a premium for getting one new subscriber to the BEE JOURNAL for a year. Clubbed with the BEE JOURNAL one year for \$1.30. Send to us for a copy.

Mr. Thos. Johnson, Coon Rapids, Iowa, has sent us samples of Italian, Albino, and Golden Italian bees. They are all fine bees, and especially the Albinos and Golden Italians are distinctly and beautifully marked. No wonder Mr. Johnson took the first premium in his three varieties of bees at the Iowa State Fair last year.

THE LAND OF DZIERZON

CONDUCTED BY

H. REEPEN,

OLDENBURG, GROSSHERZOGTHUM, GERMANY.

Women as Bee-Keepers.

* Great efforts have been made in Germany within the last two years to encourage our "better halves" in keeping bees. Lectures for lady bee-keepers have been held in different parts of the Empire, and the results are the very best.

Langdon Non-Swarming Attachment.

This device is of highest interest, but if you don't put water in the hive as soon as the supers are all on the other hive, the open brood will die, and if Mr. McEvoy is right, you will get foul brood easily. But happily Mr. McEvoy's statement is only partly correct.

How to Fill Combs with Water.

If you want to fill combs with water, sugar syrup, honey, etc., only fill a tin case, which is a little higher, and two or three inches broader than the comb, with the liquid, put the empty comb into this case, and then place this case into the honey extractor. Turn the handle of the extractor a few times, and through the centrifugal force the air which is in the cells will escape, and the liquid will fill the cells immediately. Do you know a better way? If so, please let me know.

Two Kinds of Foul Brood in Germany.

There are two different kinds of foul brood. The one is caused by rotten brood, and can be cured within some months, and the other by the *Bacillus alvei*, when there is no rotten brood in the hive, nor in any other hives of the apiary. When you see the larvae getting a little *yellowish*, the colony may be the best and the strongest of your apiary, then there is something wrong, and you may be sure that your bees have the *real* foul brood, and you are a very lucky man if you cure it within a year or two

without destroying your colonies. Put a healthy colony into an infected hive, and you will not have to wait long for this colony to be infected, too. I am afraid "a terrible lot of damage" will arise through Mr. Wm. McEvoy's saying that an "empty hive never gave the disease." (See page 597.) This statement of mine is not "guess-work" or "opinion," but *experience*.

It happens, of course, very often that rotten brood and the *Bacillus alvei* come together, and therefore the opinion is often to be found that foul brood *only* arises if there is rotten brood in the hive; but I am very sorry to say that it is not correct.

Bees Getting Water or Nectar.

Some time ago Mr. Doolittle wrote in the AMERICAN BEE JOURNAL that one could not decide whether a bee brings water or nectar, without killing her and examining the honey-sac. I suppose Mr. Doolittle was joking a little bit!

If you want to see what a bee carries into the hive, only catch her by the wings, press the abdomen *gently* with the fingers, but mind that she does not sting you, and sometimes immediately, sometimes after a little more pressure, she will vomit a little clear drop of liquid, as soon as you put one of your fingers close to her mouth. Only taste this drop, and your tongue will easily decide whether it is water or nectar.

If I want to know what kind of taste the nectar of a certain flower has, I try to catch a bee, when busy on the blossom, and by the foregoing method I know it at once, and can afterwards compare it with the nectar of bees just entering the hive. So I know for sure what kind of flowers the bees are gathering from.

Convention Notices.

ILLINOIS.—The summer meeting of the Northern Illinois Bee-Keepers' Association will be held at the residence of O. J. Cummings, 2 miles northeast of Rockford, Ills., on Aug. 15th, 1893. A good meeting is anticipated. Everybody is invited. Come and see Mr. Cumming's methods of handling bees.
New Milford, Ills. B. KENNEDY, Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture in every foreign land.
Washington, D. C. FRANK BENTON, Sec.



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

No. 4.—Texas and Her Resources.

(Continued from page 77.)

Stock, sheep, cattle and horses do well here, also poultry and swine are easily raised. Last, but not least, here is the paradise of the busy bee. There are many large apiaries in this region, numbering from 200 to 800 colonies, and their keepers are like the tongue of a wagon—do not say much, but always get there first; and as Dr. Miller has often made fun of my fishy stories about the profits of a single colony being \$10 in one season, I will now state that one friend writes me, who runs 800 to 1,000 colonies of bees, that his spring crop was 66 pounds of honey per colony on an average, and two more crops yet to gather. What do you think now, Doctor? Aren't you sorry you live away up there in that snowy region? Just think of it—800 colonies, not one or a dozen, but 800, and an average of 66 pounds, and called a short crop, with two more harvests yet!

I shall be located at Beeville next year, and for my lifetime, I expect, and will rear queens the year around. Here we have no winter troubles, no cellars to build, and I have often asserted that if our Northern bee-keepers were here they would soon realize large profits, as they will likely work hard all the year as they do up North, and soon run into large apiaries. And then just look at our shipping facilities! We have Galveston, Velasco, Rockport, and Corpus Christi, which open up to us a market to the world, as these are all good seaport towns. Then railroads penetrate the inland States and cities in all directions, and ere long this fine country will be filled up with a progressive people, and you had better come soon if you wish a home cheap, as in some places land is yet donated to settlers by the

State, and other lands are cheap, and on easy terms.

Timber is plentiful, and water is plentiful in most counties. Then, just think of the size of Texas! Take New Hampshire, Rhode Island and New Jersey, all of them, and set them down in Texas, and you could scarcely tell that she had grown any.

CLIMATE OF TEXAS.

I doubt very much if there is a country on the globe where the temperature is as nearly the same the year around as in south Texas, ranging from 45° in winter to 70° in summer, on an average, and seldom runs down to 80° in the coldest weather, nor above 90° in the hottest of summer.

HEALTH IN TEXAS.

South and southwest Texas is said to be almost a sure cure for catarrh and lung troubles, as the consumptive here finds rest, and is often cured if not too far gone. Then kidney troubles and like affections disappear by permanent residence here. Lung troubles and dyspeptics are scarce among natives of southwest Texas. Now, while these facts are all flattering, there is a great deal of hilly and poor land in southwest Texas, and out from the ocean drouths occur occasionally, which are likely to discourage some people; but if you wish to live in one of the most pleasant countries on the globe, come to southwest Texas.

Oh, I came nearly forgetting the sugar plantations. Here in south Texas we raise large amounts of both sugar and syrup, and the sugar plantations, with their long rows of tenant houses, all nicely painted, and sometimes nearly a mile in length, remind one of a little, narrow city, with here and there a large sugar plant, where the cane is worked up.

JENNIE ATCHLEY.

(Concluded next week.)

Bee-Keeping in Arkansas.

Bees have not stored a great deal of honey here this year, as there has been too much rain, but I hope we will have a good fall flow of honey. The prospects are good now for it.

We have a very good location here for bees, but there are not many kept here. We have a great many wild flowers that furnish much honey. I have always kept bees in old box-hives until two years ago, when I transferred them into

frame hives, and since I commenced taking the BEE JOURNAL I have gone to keeping bees in the right way. I use what is called the Thompson hive. It has 10 frames in the brood-chamber, and 8 in the super.

JOHN F. COFFEE.

Hope, Ark., July 8, 1898.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above \$1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—Ed.]

List of Contributors.

Previously Reported	\$6 25
Error last week	25
A. G. Amos, Delhi, N. Y.	50
James Wood, Baker, Nebr.	25
Mrs. Bertha Moulton, Nye, O.	25
A Friend, Newton, Pa.	25
Total	\$7 75

Alley's Queen-Rearing book, or "Thirty Years Among the Bees," gives the result of over a quarter-century's experience in rearing queen-bees, and describing the practical, every-day work. By Henry Alley. It contains an "Appendix," showing the improvements made in queen-rearing the last four years. Very latest work of the kind. Nearly 100 pages, with illustrations. Price, postpaid, 50 cents; or clubbed with BEE JOURNAL one year, for \$1.30.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for \$1.10.



The Number of Seasons a Queen Should Lay, Etc.

Query 881.—1. How many seasons should a queen be kept laying? 2. What is the average age of queens if left alone?—O. H.

1. Two years. 2. Two years.—S. I. FREEBORN.

They are good for about three years.—J. P. H. BROWN.

1. Not more than three. 2. I cannot say.—JAS. A. STONE.

1. Two. 2. Something over three years.—P. H. ELWOOD.

1. Until her fertility is impaired. 2. I don't know.—J. M. HAMBAUGH.

1. As long as she is prolific. 2. From three to four years.—G. M. DOOLITTLE.

1. As long as she is prolific. 2. I presume from two to three years.—A. J. COOK.

1. Perhaps two is as long as profitable. 2. About three years.—EUGENE SECOR.

Three or four years. The bees usually supersede them when too old.—DADANT & SON.

1. Probably until the close of the third season. 2. I don't know.—MRS. L. HARRISON.

1. So long as she does good work; they vary. 2. Three to four years.—MRS. J. N. HEATER.

1. We keep our queens as long as they do good work. 2. I should say about two years.—E. FRANCE.

1. Not to exceed three. 2. About the same; at the first sign of deterioration the bees supersede her.—W. M. BARNUM.

1. Under ordinary circumstances, as long as she does good work at egg-laying. 2. Nearly three years.—JAMES A. GREEN.

1. Two full seasons is the time advised by most who practice re-queening. 2. About four years, I guess.—J. H. LARRABEE.

1. Some might be kept four years, some two, and some none. 2. I don't know. At a guess, perhaps they live three years.—C. C. MILLER.

1. Not more than two; I favor one. If the queen is especially valuable for breeding, I make a difference. 2. I do not know.—R. F. HOLTERMANN.

1. I aim to replace them the season that they become two years old. 2. Perhaps $2\frac{1}{2}$ years, though many live to be past three years.—R. L. TAYLOR.

1. As many as she will lay abundantly. I let my bees manage that. 2. I think they will not average more than two years. I have had but few to live three full years, and only one to nearly complete the fourth year.—M. MAHIN.

1. A queen begins to fail after the second year, and the most successful honey-producer will see that his queens do not get much older than that. 2. If left entirely alone they would probably average about three years.—C. H. DIBBERN.

For myself, I keep a good queen just so long as she proves vigorous and active, irrespective of age; as soon as she shows the least symptom of failure, I remove her. 2. About three years, with myself. I have known them to live and prove vigorous for five years; and also to play out the first season.—J. E. POND.

1. Until she fails to attend to business properly. 2. I don't know. I had an imported Syrian queen once that I "let alone" until I knew her to be about six years old. I then sold her for \$5.00, and she was sufficiently fertile to produce bees enough to sting the man who bought her and all his help out of the yard.—EMERSON T. ABBOTT.

1. I now, after long experience, leave that to the bees. They will make fewer mistakes along this line than I am likely to make. 2. I clip the wings of my queens, and in this way I keep pretty nearly up with them. The average is about three years. Many queens are superseded at two years old; many more at three; and nearly all at four.—G. W. DEMAREE.

1. Taking everything into consideration it might be best to only keep queens 2 years; and to answer the second part of the question, I will say that two years is about an average life for queens in this locality. But good queens often do good service even the fourth year. 2. It really would be hard to average up, as so much depends upon circumstances.—MRS. JENNIE ATCHLEY.



A Great Experience with Ants in California.

Written for the American Bee Journal
BY C. W. DAYTON.

I notice Mr. Lovesy's claim for Utah being the worst place for ants, and think he should except California. Here I am troubled more or less with four sizes of red ants less than 3/16-inch long. Then there are still many more lengths of the same color, all the way up to 3/8-inch, which is the largest ant I have seen. They are very fond of honey, and search for it only at night. If a club was thrown at one of these ants, he would prepare to meet and demolish it with all the rage and courage of a grizzly bear. This ant may be easily caged by fixing a bait of honey and a bee-escape.

Then there are the corresponding sizes of black ants. I kept 50 colonies of bees on the north side of a hill about three months last winter, and ants about 3/8 of an inch long were constantly carrying away the honey. The whole hill seemed to be full of them. At first I tried to exterminate them with poisoned honey, but finally I set the hives up on stakes 6 inches high, and painted the stakes with tar. Bees that I set on the south side of the hill at the same time used much less honey, and kept in much the best condition, not being troubled with ants.

Some red ants about 3/8 of an inch long were doing a "land-office business" in my extracting room about a month ago, and seemed to recruit about as fast as I could trap them in the honey-room, but when I followed up their trail about 100 feet away, and poured burning kerosene into their burrow, they immediately disappeared.

There are several varieties of ants of the same size. In some localities nearly every blossom of white sage will contain an ant after the honey.

Then there is a very numerous kind of ant that seem to care nothing for honey, but will congregate where there is water. I notice by leaving water in a wooden pail will cause them to congregate and burrow under it; also under bee-hives, and they fight the bees when they come in their way. Possibly the dew on potato-tops might attract them when all the rest of the ground was dry. The best I could do for these was to entice them into one place by tubs or wet boards, spray them with gasoline, and set it on fire.

In some places greasewood, white and black sage, wild buckwheat, and wild alfalfa have for years grown and died, thickly covering the ground with rubbish amongst a new growth of the same, making a most excellent habitation for ants.

Soon after putting up a tent and beginning extracting, I discovered that several kinds of ants were numerous, and when I would find a nest of them making a raid on the extractor or capping can, a dose of kerosene would usually check them enough to be tolerated. But about two weeks ago a new set of black ants put in an appearance, whose number approached the intolerable, as they simply swarmed into and upon everything either sweet or sour.

Soon after them also came the spryest little red ants I have ever seen, and for pilfering were simply astonishing. I found a belt of them six inches wide, and as close together as the cells in honey-comb in the extractor. I took up their trail, burning all the grass over them, and put burning oil in their burrow. Then they were entirely gone for about six hours, when it was found that they had established in new quarters, and formed a trail to the extractor about two feet wide. By raking up all the grass and weeds, and spreading it over the ground and burning it, their progress was checked again.

Up to noon the next day no ants came, so I left the apiary for two days. On my return I found their numbers increased at least ten times. There were six or eight trails, and they had spread out on the old trail about ten feet wide. Several colonies of bees that came in their way swarmed with ants inside and outside the hives. Three colonies were strong extracting colonies, with upper stories, and when I rapped on the hive no response came, while other colonies were working lively. These hives were opened without smoke—a thing I had never been able to do before, and ants

were searching thickly all over the combs and amongst the bees. Thousands were taking honey from cells. These ants are so small and quick in movement that bees can do nothing with them, and seem to be entirely at their mercy. After thinking over the matter for a few moments, I concluded that burning oil or straw was entirely inadequate for so extensive a case, so I bundled together a quantity of greasewood brush with wire, and when it was well on fire dragged it sidewise over the ground, and I find by this plan that I can destroy in a half hour all the ants that can accumulate in a week.

Pasadena, Calif., June 30, 1893.

Bee-Keeping in East Tennessee —Non-Swarming.

Written for the American Bee Journal

BY H. F. COLEMAN.

After an almost unbroken honey-flow here for nearly three months, the season is now drawing to a close. The season has been better than an average, but the honey crop is rather small. The bees were so weak in the spring that they did not build up in time for the poplar, which affords our greatest surplus. The increase from natural swarming has been very great. In many instances first swarms have cast swarms, with the usual propensity to after-swarming, and the old colonies that swarmed early have swarmed again. We now have as many, or more, bees than we had before the disasters of last winter.

East Tennessee, especially the mountainous parts, is one among the finest honey localities in the United States, but it takes great care and attention to produce large yields of comb honey here. Our seasons are so long, that with the high pressure necessary to produce comb honey, there is too much swarming and too great increase of colonies.

THE LANGDON NON-SWARMER.

We have waited and watched with interest for reports of experiments with the Langdon non-swarming device, but have fears as to the result. Rambler's report, as published in *Gleanings*, has added to our fears, with reference to the loss of queens in using that device, and there are other objections to it equally as serious, in my opinion; but for the want of space and other reasons, they will not be mentioned just now. For

the present, we know of nothing better than the plan practiced by Mr. Doolittle, and the jumping plan, to prevent or keep down the swarming fever at a time when not wanted; but neither of these plans works perfectly where the seasons are as long as ours.

Bee-culture in East Tennessee is now on a higher plain than ever before, and in my opinion great results may be expected from this locality in the future.

Sneedville, Tenn., July 11, 1893.

Experiments in Apiculture Made in 1892 at the Michigan Ex- periment Station.

Reported to the Department of Agriculture

BY J. H. LARRABEE.

(Continued from page 53.)

THE EVAPORATION OF HONEY.

Nectar of flowers taken into the stomach of the bee undergoes certain chemical changes before it is finally deposited as honey in the cells of the honey-comb. The recent analyses, by direction of the United States Government chemist, and those instituted at the Michigan State Experiment Station, prove that there is no chemical change made in the honey by the bee after it is deposited in the comb. There, however, remains much water in this honey that must be evaporated by the hive and the current of air through the hive caused by the fanning of the bees. It is well known that this labor of evaporation and the room occupied by this thin honey interferes greatly with the rapid gathering of nectar. In this opinion I am confirmed by a study of many records of colonies placed upon scales during the honey-flow.

It is often desirable to extract all of the honey gathered from one species of honey-plant before the flow from other sources begins, and before the former has ripened to the usual consistency of good honey. The property of granulation in honey is so troublesome that its prevention would be very desirable. The experiments in this line have plainly indicated that the "water of crystallization" can be easily expelled by a proper artificial heat and the product sealed, so as to preserve it in a liquid state for an indefinite time. For these reasons it was thought best to experiment in this direction with various forms of artificial heat in the effort to devise some cheap

and sure method to assist the bees in this work.

For this purpose there were constructed a series of six shallow pans 19 by 28 inches in size, with partitions 2 inches in height, open on alternate ends, similar to the partitions in a maple-syrup evaporator. These were arranged in a cabinet, one above the other, so that honey entering at the top was obliged to flow some 75 feet before passing out at the bottom. An oil-stove was placed beneath the whole, and a pipe at the top caused a current of heated air to pass upward over the honey. The fumes of the stove were carried off by means of a second pipe, in order to avoid all danger of their injuring the flavor of the honey. Honey of average body with 10 per cent. by weight of water added was reduced again to the normal condition by passing twice through the pans at a temperature of 120°, and about 100 pounds per day was evaporated at that temperature. Thin nectar, extracted from the hives very soon after being gathered, was evaporated to the thickness of good honey at about the same rate.

This apparatus was kept in operation about ten days upon honey of various thickness, and upon clear water with the above definite results. The flavor of the first honey was injured—probably by the first acid action of the honey upon the outer coating of the tin. Afterwards this was not as apparent. The color was also somewhat affected.

The heat of the sun was also tried for purposes of evaporation. A shallow pan 28 by 54 inches in size was filled 3 inches deep with thin honey. This was covered with glass 6 inches above the honey, and left in the sun for four days, when about 5 per cent. of the moisture was evaporated. As the honey lies at rest the water rises to the top, somewhat aiding evaporation. The flavor and color are not affected as much as by the method of running through pans. In this way honey with 30 per cent., and even 40 per cent., of water added was evaporated to the consistency of very thick honey in three weeks' time, so thick that it has not at this date showed any signs of granulation.

During favorable periods of sunshine a temperature of 165° was reached. By this method a tank 4 by 6 feet, with 6 inches of honey, and weighing 1,300 pounds, should be evaporated 10 per cent., or from the consistency of freshly gathered honey to that of average body, during about two weeks in July or August.

The common method of exposing to the air in open vessels in the warmer upper story of a building was also tested with honey to which 10, 20, 30 and 40 per cent. of water had been added. That having 40 per cent. added became strongly fermented in a week's time, while only a slight change had taken place in the 30 per cent. dilution, and at the end of a month it tasted like a very poor quality of commercial extracted honey, or like honey-dew. The 20 per cent. dilution was not nearly as bad, and the honey, with only 10 per cent. of water added, was during the month returned to the consistency of very fair honey.

Nectar extracted two or three days after the combs were placed in the hives contained, during the dry weather of July and August, from 10 to 15 per cent. of water above the amount always found in honey that has been sealed in the comb by the bees. This was determined by evaporating in test tubes in hot water.

Summary.—1. The method at present promising best results for artificial evaporation is that by solar heat under glass well ventilated. A small portion of a greenhouse or forcing-house arranged for conserving the heat of the sun, and so located that honey could be run into the shallow vats directly from the mouth of the extractor, and drawn off from the bottom of the vats into marketing receptacles, should give good practical results.

2. Very thin honey or nectar will not sour as quickly as supposed by many, and may be safely kept during any period of cloudy weather we may have during the hot summer months.

3. The method of exposing to air in a warm room cannot be depended upon to ripen very thin honey, although it may be serviceable for evaporating a very small percentage of water.

4. The method of evaporating by artificial heat of stove or furnace is expensive and troublesome, requiring constant watching and care, and not giving as good results as had been hoped for.

5. The possibilities in the line of evaporating honey for the purpose of increasing the yield and preventing granulation are very great. A series of experiments to determine the increase in production by extracting freshly-gathered honey would be next in order and value. When the utility of this method is fully demonstrated, supers with fixed frames and extractors holding whole cases will be used, and other ap-

paratus conformable to the needs of the new system.

FEEDING BACK HONEY.

Feeding back extracted honey to secure the completion of unfinished sections at the close of the harvest is practiced by some apiarists, but with varying financial success. Extracted honey can be transported long distances with much greater safety than can comb honey. For this reason it has been thought it might be profitable to feed bees extracted honey costing 7 or 8 cents per pound to produce comb honey selling at 13 to 15 cents, locating the apiary designed for this purpose near a large city or other favorable market. With the idea of adding light upon this subject, extracted honey was fed to a number of colonies under the following conditions:

The hives were contracted, and the queens kept in the brood apartment by means of excluding zinc. Five colonies were given two crates each of unfinished sections, the sections of the whole weighing 113 pounds. Three hundred and thirty-eight pounds of honey were fed these 5 colonies during 12 days. The honey was thinned with 12 per cent. of water, and warmed before feeding. The amount of finished honey obtained was 367 pounds, or a gain of 254 pounds by feeding 339 pounds of honey. The hives were weighed both before and after the honey was fed, and a gain of 36 pounds during the feeding recorded for the five hives. The following gives the results from a financial view:

254 pounds comb honey by feeding, at 14 cents	\$35 56
36 pounds stored in hives, at 8 cents	2 88
	38 44
Minus value of 338 lbs. fed, at 8 cents	27 04
Profit as pay for labor, etc	\$11 40

Two colonies were given crates of sections with full sheets of foundation, and were fed extracted honey, under the same conditions as the 5 colonies above:

	Pounds.
Amount of honey fed each colony....	66½
Colony No. 1, finished comb honey....	41½
Colony No. 1, gain in weight of hive....	9
Colony No. 2, finished comb honey....	38
Colony No. 2, gain in weight of hive....	7½

Taking these two colonies as a basis, the following financial statement is made:

79½ pounds comb honey, at 14 cents.	\$11 13
16½ lbs. honey stored in hives, at 8 cents.	1 32
	12 45
Minus value of 133 lbs. honey fed, at 8c.	10 64
	\$1 81

Deducting from this profit the value of the sections and foundation used, the actual profit, as pay for labor, etc., is, at most, nominal.

When this whole experiment was begun, and during the time it was in progress, no honey was gathered from the fields, but before the sealing was all accomplished, the fall honey-flow began, and for this reason the experiment was ended, and the honey removed sooner than would otherwise have been advisable.

The results obtained in this work, or in any experimental work of a similar character, might vary under more favorable or unfavorable conditions of environment, and a continuation in various seasons, and under other conditions, would alone give really reliable results. The above trials are, however, very encouraging, and longer and varied work in this line is desirable.

Agricultural College, Nov. 17, 1892.

Where was His Mistake?—The Season in Nebraska.

Written for the American Bee Journal

BY DR. JAS. B. HUNGATE.

While away from home with the National Association of Railway Surgeons' Excursion, Mr. E. Kretschmer kindly sent me an untested "Golddust" queen, to replace one I got of him last fall that was clipped. Mr. A. B. Campbell, who handles bees here, very obligingly took charge of the queen, and went to my apiary and made up a nucleus, fixing the cage so the bees could eat her out, and laid it on top of the frames, covered the box and came away.

Now the colony he used in making the nucleus was a rather weak one, with a young queen that I got in April from Mississippi. She proved to be an excellent layer, producing finely marked five-banded bees, but she herself was darker than usual, with an extraordinarily long and full abdomen. I prized her much.

When I came home, five days after Mr. Campbell's manipulations, and he told me what he had done, I thanked him, and asked him if he had examined to see if the queen was liberated. He said he had that day, and was surprised to find her laying so abundantly.

The next day I put frames of bees and hatching brood in an eight-frame Langstroth hive, and waiting until dusk I went to the nucleus box to add the

queen and her bees to them, so they were all young bees. Imagine my surprise on finding my Mississippi queen in the box, but nothing resembling "Gold-dust." I at once opened the hive alongside from which the first nucleus was made, and, as I anticipated, found about 20 queen-cells nearly ready to cap over.

I took a frame of these and gave to the nucleus I had made in the morning, so they might have a mother-bee that was a daughter of my beloved Southern beauty; at the same time much regretting the loss of the longed-for "Gold-dust." I then took the first nucleus and queen, and put them back in their original hive without destroying the cells in it, believing that they would do that for me, and accept their mother. I waited five days, and looked in to see the queen-cells still there, and no eggs in the two frames I picked up, and thought I had now lost two queens instead of one.

To-day (June 14th) I examined the nucleus I had given the frame containing queen-cells, and found a fine young queen just hatched, and exactly resembling her mother. Then I went to the colony Mr. Campbell had used, to see if I could find a new queen there, but, behold! eggs and larvæ in all stages, and the same old Mississippi queen, or her exact counterpart.

Now, Mr. C. contends, and proves by witnesses, that he found the queen before making the nucleus, and carried her on the frame down the hill to show off her beauty to a friend, and after making the nucleus in a hurry—for a storm was coming—he positively put her back into the hive. Query: Where was the false manipulation? Is the queen I got from Mr. Kretschmer an exact counterpart of my Mississippi queen, and that the latter was dropped in the grass from the frame in the haste? Or, as I think, is Mr. C. not mistaken about where he put the old queen, and got her into the nucleus-box, and she destroyed the caged one? I found what I took to be the dead body of the Iowa queen in front of the nucleus box the day I discovered my disaster.

Can any one throw any light on this case, and show Mr. C. his error? We learn more by our mistakes, anyway, than our successes.

Bees here are just beginning to get a little surplus, but many colonies have perished recently (while the owner's were watching for them to swarm) from starvation alone. In this particular the experience here agrees with that of the

Omaha correspondent on page 746. I have watched my 15 colonies closely, and fed them just in the nick of time, and have not lost any.

Basswood promises a big crop now, and is only two weeks away. After we get it, I may write again.

Weeping Water, Nebr.

A Visit to the Apiary of Mr. G. W. Demaree.

Written for the American Bee Journal

BY J. M. PRATT.

Early in the morning of June 29th, I hitched up my old horse, that can travel something less than a mile in three minutes (and his fastest speed was when he got into a bumble-bees' nest some years ago), and off I struck for G. W. Demaree's place, at Christiansburg, a distance of a little over 18 miles by our county-make turnpike, all the way from my yard gate to his, through a beautiful farming country.

At 8:45 a.m. I rang the door-bell, and Mrs. Demaree came to the door. I asked for her husband, and she told me he was out in the apiary. So I told her that was where I wished to find him, also told who I was, and where I was from, and then I proceeded to find Mr. D. After a few words of introduction (and let me say right here that thousands of the readers of the BEE JOURNAL know him as well as I did before I went to see him), I told him that I came to spend a portion of the day with him and his bees. He gave me a cordial welcome, and a shake of the hand, took my horse and put it away with abundant feed. Then we went to his honey-house, with its extractor, three large honey-tanks, honey in sections, honey in samples for many years back, a large book-case of law books and bee-literature, etc.

Then we went out to the bee-yard—all out in the sun, without any shade trees, but a shade cover made of wood. At one glance every hive could be seen. While I was looking around, Mr. Demaree lit up the smoker, and we began looking into hives of Italians, Carniolans and Punic. We found lots of honey ready to come off, in both frames and sections. I saw a colony that looked very weak; I was told they were the Punic, and had swarmed themselves to death. Well, we opened the hive—they were not dead, for in less than a minute they were boiling all over the top of the hive, like a kettle of hot water, and like

steam escaping, around our heads. I was told they would follow for a half hour trying to sting, and so they did.

As we went from hive to hive of Italians, those Punics were still after us, and when we went to Mr. D.'s arbor, on one side of the yard, and were seated, the most amusing thing to me was to see our friend use his paddle on these Punic bees, as they came in under the arbor. I never saw him miss one but once. All were sent to the ground never to return.

Well, I didn't go out to see his bumble-bees.

His solar wax extractor was at work in one corner of the apiary.

The remainder of the morning was spent in talking about bees and queens; drones and queens mating in the open air, and refusing to mate in a tent of confinement, all of which was very interesting.

I asked if he believed there was such a thing as male and female eggs, and if the queen knew just when she was going to lay the drone egg, so as to hunt up a drone-cell to deposit that egg. He said he thought the queen was prompted to do what she did by a natural instinct; and a line of thought presented itself here that we knew but little about.

Mr. D. kindly gave me a tested Italian queen, a bee-escape and a drone-trap.

At about 12 o'clock I was invited into the dining-room, where Mrs. Demaree had the table supplied with a bountiful dinner, of everything that a hungry man's heart could wish for.

Of all the apiarists that I have visited in this county of Shelby, Mr. Demaree was the most pleasant and profitable to me. There are no selfishness or secrets in his bee-business. I shall look for him to return the visit, and I shall do all in my power to make his stay as pleasant as he did mine.

I think the honey will not exceed one-fourth of a crop in this county this year.

Todd's Point, Ky., July 6, 1893.



Report of the Cortland Union Bee-Convention.

Written for the American Bee Journal.

BY C. W. WILKINS.

It was my pleasure to meet many of the members of the Cortland Union Bee-Keepers' Association at my home, on Wednesday, May 31, 1893. The morning was spent very pleasantly in apicultural conversation and matters pertaining to the interest and pleasure of those present.

After the "cravings of the inner man" had been satisfied, the meeting was called to order by Pres. M. R. Wood, of Cortland. The reports of the Secretary and Treasurer were read and approved.

The place of meeting for our annual picnic was again fixed at the Cortland Trout Park, on account of its being more central, and presenting better accommodations and more attractions than any other location brought before the meeting. Miles Morton, of Groton, M. Fairbanks, of Homer, and J. L. Kinney, of Cortland, were appointed by the Secretary, at the request of the President, to act as a committee in assisting the standing committee in fixing the date, arranging programme for, and booming the picnic.

In a section containing the number of apiculturists of promise and success with which ours is blest, it is a shame, a disgrace to our vocation—indeed, it is a slur on civilization, that we are not represented in a more thorough manner, and that we do not show more interest in our work. Come, You are going to miss something of importance to you, if you are absent from our picnic.

The meeting next proceeded to ascertain the loss of bees during the past winter and spring. But few bees were lost during the winter—the spring is what did it, causing a loss which has reached at least an average of 29 per cent.

SPRAYING FRUIT-BLOOM.

As the premature performance of this

"**A Modern Bee-Farm and Its Economic Management,**" is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5½x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, post-paid, from this office, \$1.00; or clubbed with the BEE JOURNAL for one year, for \$1.70.

effort to protect the product of the orchard from the ravages of insects of destruction, have injured the stock of the apiarist quite severely in some sections, this subject was discussed to considerable length. The difficulty of controlling this action of ignorance, malice or "pig-headedness" (as the case might be) of the farmers and fruit-growers, was so thoroughly appreciated by those present that it was decided that if legislation could not be secured against it, the former complaint only could be remedied. We need legislation controlling the time for the performance of this act!

BUILDING UP WEAK COLONIES.

Put extracting tops on your strongest colonies (now, during fruit-bloom) containing combs from your empty hives in which the bees have died, after the combs have been cleaned up and honey extracted. Use no queen-excluder now, and when combs contain brood about to hatch, or hatching, distribute them among the weak colonies in place of those which are empty. This also protects combs from the moths.

RE-QUEENING COLONIES.

Do not sacrifice a prolific queen for any or *all* other good qualities, should be our first axiom. Substitute a good queen or queen-cell for worthless cells in a colony from which a swarm has recently issued. Introduce a queen by placing the cage containing her underneath the quilt in contact with the bees, after the old queen has been removed, of course, until accepted by them. A valuable queen should be placed in a nucleus of young bees and brood, and built up to a colony.

CANDIED HONEY IN COMBS.

"If combs containing candied honey be placed in the hives, will the honey become liquid after the exposure of the season to the summer's heat?" This was answered in the negative. Such honey should be uncapped first, and extracted so far as possible. The bees will then clean it out.

CLEANING OLD COMBS.

How should it be done? Scrape the frame as much as you can handily, brush the dead bees from the comb, and then place it in, or on, a swarm, and they will do the rest.

SHIPPING COMB HONEY.

Paper boxes were decided to be better than glass for shipping purposes, as the

breakage of one box does not daub up the rest.

The convention then adjourned to convene at the picnic, at the call of the committee.
C. W. WILKINS, Sec.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Aug 15.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Oct. 11, 12, 13.—North American (International), at Chicago, Ill.
Frank Benton, Sec., Washington, D. C.

In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.....Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

Illustrated Poetry.



"The wild bee's morning chase."—WHITTIER.

Dr. Miller's "A Year Among the Bees" is a book of over 100 pages. It commences with the necessary work in the spring, and runs through the entire year, detailing the methods of doing, as well as telling when to do, all that should be done in the apiary. Bound in cloth. Price, postpaid, 50 cents; or clubbed with the BEE JOURNAL for one year, for \$1.35.



Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Had a Splendid Honey-Flow.

This vicinity has had a splendid honey-flow until this week, when it has been stopped by a very severe drouth. All my colonies that were in good condition on June 1st, have stored from 50 to 75 pounds of surplus comb honey each, of very fine quality. Much of it has come from red clover.

J. A. C. DOBSON.

Brownsburg, Ind., July 15, 1893.

Small Quantity, but Fine Quality.

The honey season is over here, and but a poor yield at best, all from white clover; but our product is of the best quality, and an average of about 40 pounds per colony.

C. V. DEMAREE.

Zilpah, Ky., July 13, 1893.

"Try, Try Again," is His Motto.

I had 15 colonies of bees last fall, but during the winter and spring I lost them all. I have since bought 5 colonies, and mean to try again.

F. A. RICHARDSON.

Cannon Falls, Minn., July 18, 1893.

Poorest Season for Years.

The white honey season has gone, and not a swarm of bees, and very little honey. We have to depend upon the fall flow; this is the poorest season for years, so far. We will live in hopes of getting a fall flow.

J. W. BLODGETT.

Empire Prairie, Mo., July 14, 1893.

Pure Linden Honey—Good Prospects.

I extracted from an 8-frame hive last evening. I looked at one, and they had the 8 frames nearly full again in two days. It is an out-apiary three miles from a linden grove, and is pure linden honey. Yesterday the wind was from the south, and the mercury was 108 degrees at the out-apiary; 100 degrees at home. Such weather would cook anything. To-day it appears cooler, and prospects are good for a good time for the "honey-flies."

THOS. JOHNSON.

Coon Rapids, Iowa, July 14, 1893.

Pays to Read the "Bee Journal."

I put 42 colonies of bees in the cellar last fall, and in the spring found 7 dead, and almost all the rest weak in bees; so I united them until I had only 18 colonies, and they are in good working order, as you can judge, for I have taken off over 1,000 pounds of white clover honey.

Most of my neighbors that have had bees have lost them, and what are left are so weak in bees that they are getting no honey. I think that three-fourths of the bees died in this county last spring, and almost all that lived are so weak that there won't be much surplus honey to be sold from this county. I think if they would take the AMERICAN BEE JOURNAL, and follow its teachings, they would have better success. That is my advice to the bee-men of this (St. Croix) county.

A. E. BRADFORD.

Hammond, Wis., July 17, 1893.

Looking for a Good Fall Crop.

Bees are not doing much here this season, on account of cold, dry spring and scarcity of stores. They did not build up much until the honey-flow from white clover had commenced. About 95 per cent. of the bees in this locality died the past winter and spring, mostly from starvation. But we look for a good fall honey crop.

R. T. REYNOLDS.

Denison, Kans., July 18, 1893.

Plant Linden—Fair Bee-Year.

I am doing all I can to get linden planted for shade trees in this town. As it is the finest tree there is for shade purposes. It is as fast a grower as the swamp maple, in the same row, and makes the nicest tree. As far as I can see, this is a fair year with the bees.

The BEE JOURNAL is ahead of all the novels that are printed.

HERMAN E. KLOTH.

Glendale, O., July 17, 1893.

Button-Willow as a Honey-Plant.

Mr. T. W. Wheeler asked about willow as a honey-plant in the BEE JOURNAL of June 29th. I will try to answer him so far as my locality is concerned.

Button-willow furnishes a large amount of honey, and of good quality. The swamp land in this locality is timbered with it principally, and when in bloom the bees seem to give it the preference over the other bloom, and while it lasts the bees bring in honey fast. Here button-willow blooms in July, and from it the bees gather most of the honey during that time. I regard it as one of the best of honey-producing shrubs in this part of the State, and if Mr. Wheeler is located where button-willow abounds, he should visit it during its bloom, and see the bees at work. It is very interesting to me to go where the bees are gath-

ering honey, and there watch them as they go from one bloom to another, collecting the nectar. I visited the swamp yesterday, and while the buttonwood (or button-willow) has only begun blooming, yet the bees were there before me, and the swamp appeared to be alive with them.

B. F. BOULTINGHOUSE.

Rockport, Ind., July 11, 1893.

Pulled Queens—Good Season.

Mr. Coleman's idea of using pulled queens (which he mentions on page 7) is interesting. That plan might prevent after-swarms in some cases, by getting a laying queen before the colony becomes strong enough to swarm again. Perhaps he can tell us something more about the matter. I have tried giving them a young laying queen, with good results, but I have never tried his plan.

The season still remains good. Those that had strong colonies, and prevented increase, will secure more than an average amount of surplus. Flowers seem to last much longer than usual, and fill the air with fragrance.

J. H. ANDRE.

Lockwood, N. Y., July 10, 1893.

Reports a Good Honey Season.

My bees are doing splendidly. My first swarm came out on June 17, and gave them a full set of empty combs, and in just two weeks they had a full case of sections all finished up, and at this date I have taken off a full case each from 16 colonies as nice honey as I ever saw.

We have white and Alsike clover in abundance. Basswood is in bloom now, and there are 2,000 trees within 1½ miles of my bees. It is not blooming as full as common, although I expect a good yield from it. I have 19 colonies, and all swarmed twice. I put all second swarms back.

I am selling comb honey for 13 cents per pound by the crate—not a very big price, but it is the best we can do here.

The AMERICAN BEE JOURNAL is a welcome visitor. I do not see how I could get along without it. Long may it live!

L. REED.

Reed City, Mich., July 14, 1893.

The Value of Foundation, Etc.

Some do not know the value of foundation. It helps nearly two-thirds in building up, and in every country that I have been, I see no difference. I was brought up near Louisville, Ky. It works just the same there as here. I do not call myself an expert, but I read all that I can find, that says anything about bees, and I try to practice the best method that is adapted to the climate.

One thing, I do not see many that get any surplus when they want to rear queens in the spring. My plan is to put in a full sheet of foundation in the best hive, and when the eggs are hatched, I pick up the

largest colony of bees in the yard, when they are flying well, putting a new hive on the old stand with only the brood in one frame, and that being the sheet of foundation that I first put in the best hive. Then I put a new sheet of foundation on each side of the brood, and put in 16 sections on the opposite side with starters. By the time the queen is hatched, they will have the sections filled; that is, up here.

McKinley, Mich.

C. CRANK.

No Surplus—Few Swarms.

We have no surplus honey up to this time, and but few swarms.

W. E. BURNETT.

Harrisburg, Ills., July 1893.

Not a True Prophet.

I extracted some honey at one of my out-apiaries, and found it to be pure linden. Now, where did it come from? Sam Wilson said the bloom would not furnish nectar here, and the bees are two miles from any linden. My home apiary is surrounded with linden, and the bees are gathering linden honey very fast from "prairie grass," to use the prophet's assertion. Oh, yes, white clover and linden would be almost a total failure in this part of Iowa! Rats!

THOS. JOHNSON.

Coon Rapids, Iowa, July 11, 1893.

Remedies for Bee-Stings and Worms.

The best remedy for bee-stings is strong tincture of "lobelia infallia." I have a bottle of it, and when a bee dabs me, I dab the place with the lobelia, by turning up the bottle on the place stung, and that ends it.

Mr. Daniel Sprague (see page 24) asks for a remedy for worms on leaves. Take a common wooden bucketful of water and add thereto three table-spoonfuls of Chloro-Naphtholeum. It will kill all and any kinds of worm or caterpillar. Just sprinkle a little on the worms.

EDWARD S. POPE.

Indianapolis, Ind.

Great Loss in Springing Bees.

The summer of 1892 was a poor honey season. Last November we put 104 colonies into the cellar, and the wintering was all right, with small loss. On April 10th, a fine day, they were given liberty, and had a good time. As soon as possible all were looked through, plenty of nice honey given them, and the entrances closed except a little room to fly through. So far, all right. But, alas! seven weeks of cold wind and rain left us with only 44 colonies, and half weak at that; but they are doing nicely now. The clover is good, and basswood is just coming. Hurrah, now! With a loss of two-thirds of all the bees, the bee-keepers will try to get their empty hives filled.

O. E. CLARK.

Brillion, Wis., July 17, 1893.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the *American Bee Journal* must be sent with each order for another paper or book:

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The World's Fair Women

"Souvenir" is the daintiest and prettiest book issued in connection with the World's Fair. It is by Josephine D. Hill—a noted society lady of the West—and contains superb full-page portraits and sketches of 31 of the World's Fair women and wives of prominent officials connected with the great Fair. It is printed on enameled paper, with half-tone engravings, bound in leatherette. We will send it postpaid for 60 cents, or give it for two new subscribers to the *BEE JOURNAL* at \$1.00 each.

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the *BEE JOURNAL* for one year, for \$1.15.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the *BEE JOURNAL*. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

"Bees and Honey"—page 99.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, July 22, 1893:

CHICAGO, ILL.—We quote fancy new honey at 18c.; No. 2, at 16c.; amber, 15c. Beeswax, 22@25c. We have had some shipments of fancy new stock which sold at once, J. A. L.

CHICAGO, ILL.—There is not much movement in comb honey. Prices range at from 12@16 and 17c., all good grades bringing 15@17c. A few cases of the new crop have arrived and brought the top prices. Beeswax is very steady at about 25c. Extracted honey is moving very slowly at from 6@8c.

R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.

Beeswax—20@23c.

C. M. C. C.

CINCINNATI, O.—Trade is dull in all its branches, with a fair demand for extracted honey at 5@8c. Prices for comb honey are nominal, with no choice honey on the market. Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—No comb honey on the market. New crop extracted is now arriving freely from California and the South, and the market is well stocked. Trade is quiet, demand light, and prices have a downward tendency. We quote—Southern, common to fair, 60@65c. per gal.; choice, 70@75c. per gallon. California, 6@6½c. per lb.

Beeswax—25½@27c.

H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality. 1-lbs. Beeswax is neglected at 22@23c.

S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 8@7c. No beeswax on the market.

H. & B.

BOSTON, MASS.—Honey is selling slow and prices are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.

Beeswax—None on hand.

B. & R.

ALBANY, N. Y.—Our honey market is dull at present. There are some receipts of new extracted, but no reliable price established yet. Beeswax is more plenty, at 27@28c. for good color.

H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white comb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable.

J. A. S. & Co.

A Binder for holding a year's numbers of the *BEE JOURNAL* we mail for only 50 cents; or clubbed with the *JOURNAL* for \$1.40.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

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New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.

HILDRETH BROS. & SEGELKEN,

28 & 30 West Broadway.

CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.

CLEMONS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

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